

# Mental Health of Cancer Survivors during the COVID-19 Pandemic in the United States: An analysis of the COVID-19 Impact Survey

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## Background and Objectives

- Cancer survivors are at a high risk of COVID-19 due to older age, frequent comorbidities, and a weakened immune system if they are undergoing active treatment.
- Preventive behaviors such as maintaining six feet distance from others, are recommended to slow the spread of SARS-CoV-2 infection.
- Recommended preventive behaviors may lead to social isolation and mental health symptoms.
- Poor mental health can be a barrier to engaging in survivorship care, as well as disrupting quality-of-life.
- Limited research exists on the impact of the COVID-19 pandemic on the mental health of cancer survivors in the U.S.
- Objective:** Our objective was to evaluate mental health symptoms and determinants of mental health symptoms among cancer survivors during the COVID-19 pandemic in the U.S.

## Methods

- Nationally-representative data of 10,760 U.S. adults from the COVID-19 Impact Survey.
- Data from Week 1 (April 20-26, 2020), Week 2 (May 4-10, 2020), and Week 3 (May 30th-June 8th, 2020)
- Cancer survivors defined as adults with a self-reported diagnosis of cancer (n=854, 7.6%).
- Used multinomial logistic regression to evaluate associations of mental health symptoms among cancer survivors using
- Estimated determinants of reporting at least one mental health symptom 3-7 times in the seven days before survey administration among cancer survivors using multivariable Poisson regression.

## Results

- Background Characteristics:**
  - Most cancer survivors were over the age of 60 (65%), and NH-White (74%). Over half were female (52%) and married or living with a partner (57%).
- ~50% reported they either trust all or most people living in their neighborhood.
- Among cancer survivors who spoke to their neighbors "basically every day" before the start of the COVID-19 pandemic, 62% continued this behavior, and 34% reported in the last month to speak to their neighbors a few times a week (Figure 2, Panel A).

During the COVID-19 pandemic, cancer survivors were more likely to report frequently (3-7 days/week) feeling nervous, anxious or on edge, depressed, lonely, and hopeless during the last week when compared to adults without cancer.

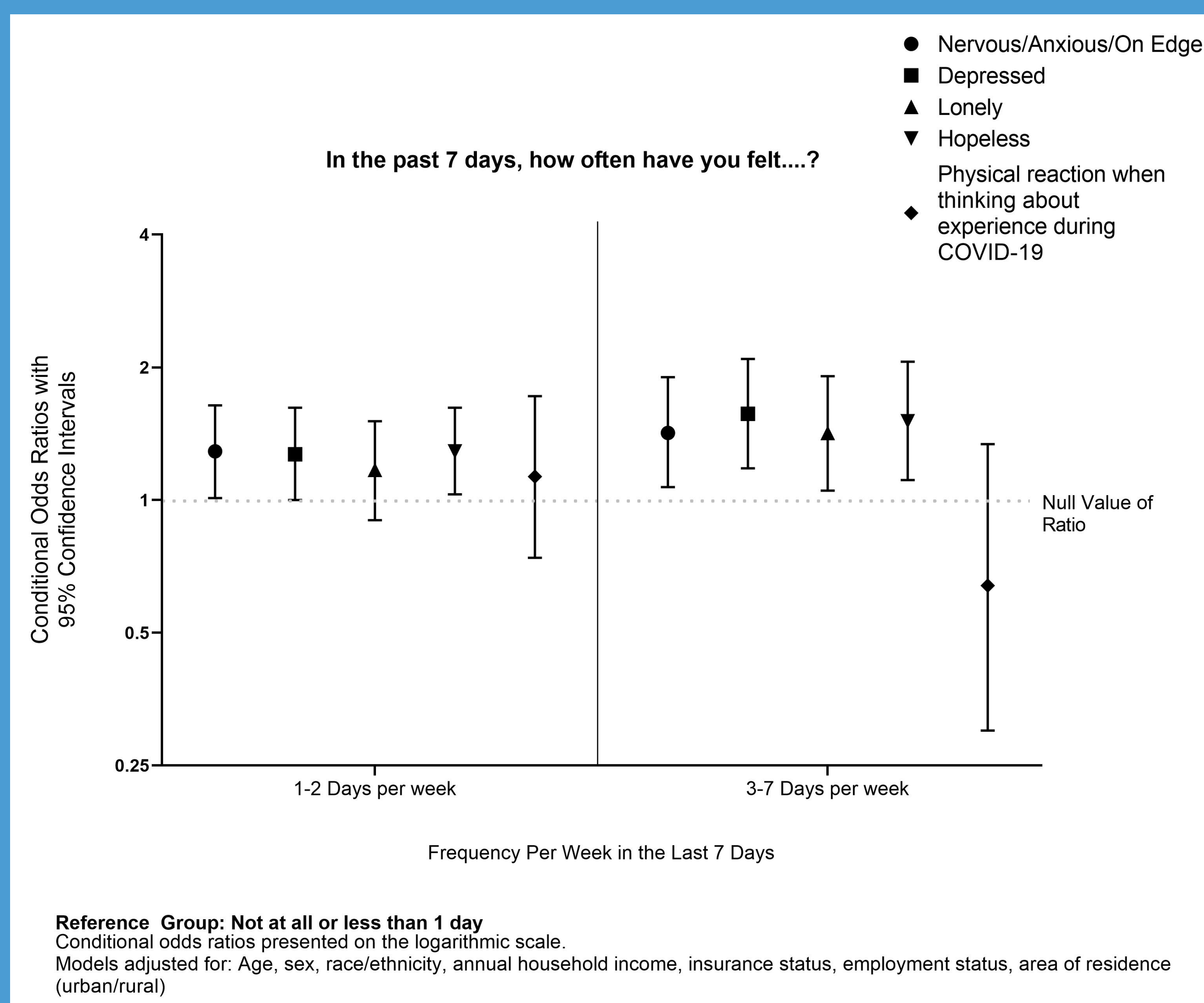


Figure 1: Associations of reported mental health symptoms in the last seven days among cancer survivors compared to the general adult population in the United States (n=10,760)

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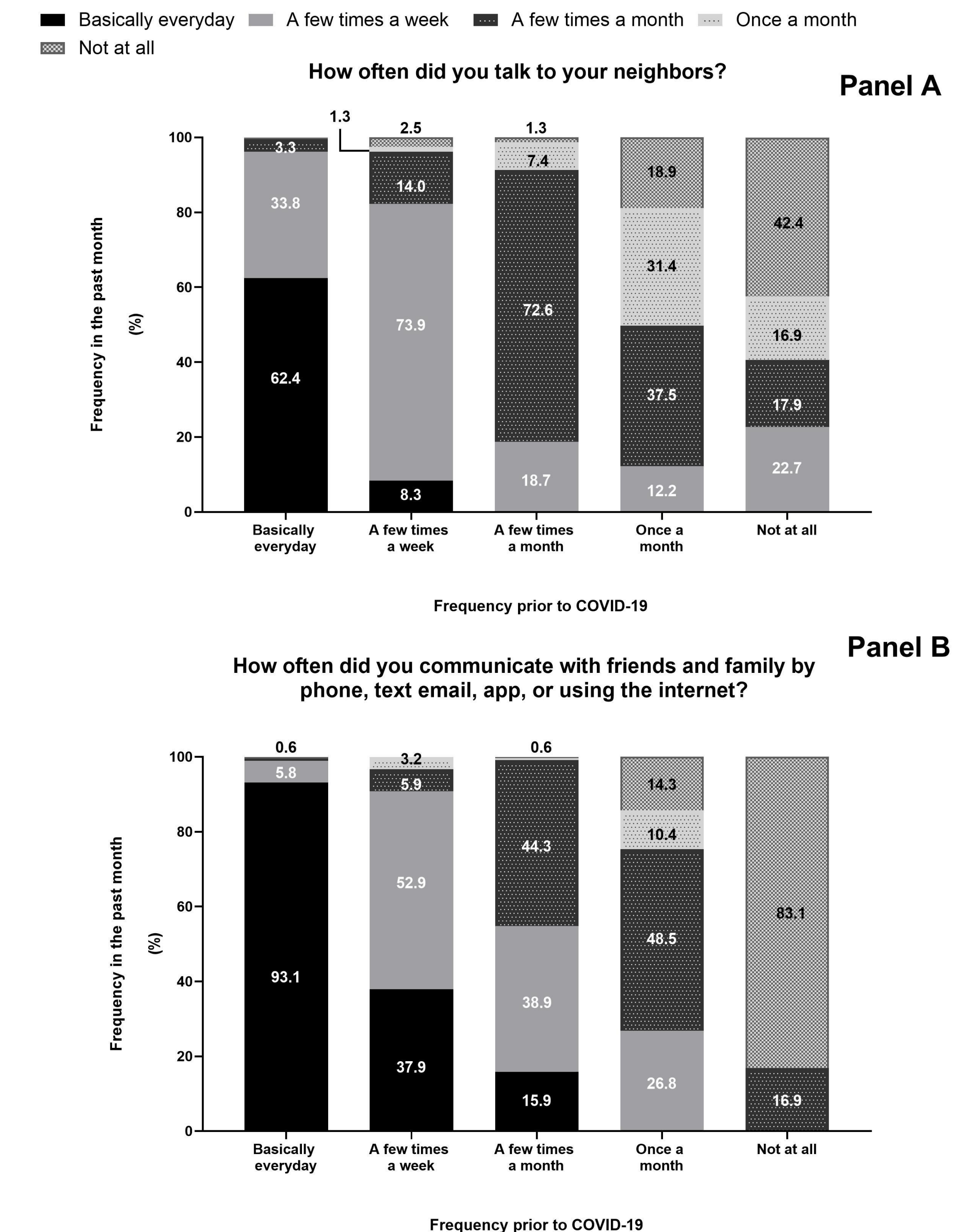


Figure 2: Change in social support after the COVID-19 pandemic among cancer survivors in the United States (n=834)

- Compared to cancer survivors aged  $\geq 60$  years, those aged 30-44 years (aPR:1.87, 95% CI:1.18-2.95) and 45-59 years (aPR:1.48, 95% CI:1.02-2.16) were more likely to report mental health symptoms.
- Female cancer survivors were more likely to report mental health symptoms (aPR:1.55, 95% CI:1.12-2.13).
- Cancer survivors without a high school diploma had a 79% higher prevalence of mental health symptoms compared to those with a BA or above (aPR:1.79, 95% CI:1.05-3.04).
- Cancer survivors with limited social interaction were more likely to report mental health symptoms (aPR:1.40, 95% CI:1.01-1.95).

## Conclusions

- Cancer survivors are reporting mental health symptoms during the COVID-19 pandemic, particularly young adults, adults without a high school degree, women, and survivors with limited social support.